

REMARKS

This communication is a full and timely response to the aforementioned final Office Action dated April 6, 2010. By this communication, claim 33 is amended for matters of form. Claims 22-32 and 34-41 are not amended and remain in the application. Therefore, claims 22-41 are pending in the application. Claims 22 and 33 are independent.

Reconsideration of the application and withdrawal of the rejections of the claims are respectfully requested in view of the foregoing amendments and the following remarks.

I. Rejections Under 35 U.S.C. § 112

The Office alleged that the phrase "automatically allocating a respectively unique TCP/IP address to each one of the withdrawable units by an application server connected to the Ethernet switch at one of during installation of the withdrawable units into a corresponding one of the insert compartments and after installation of the withdrawable units into the corresponding one of the insert compartments" is indefinite because of the use of the phrase "one of".

The phrase "one of" is a commonly used form of an alternative limitation and functions as a substitute for the term "or", since the term "or" is commonly interpreted by Office personnel to render a claim indefinite. For example, the phrase "one of A and B" means "A or B", whereas the phrase "at least one A and B" can mean A alone, A and B, and/or B alone.

Claim 33 has been amended to add numerical separators (i) and (ii) to more positively separate the different conditions following the phrase "one of". Accordingly, claim 33 recites that a respectively unique TCP/IP address is automatically allocated to each one of the withdrawable units either (i) when the withdrawable units are respectively installed into their corresponding insert compartment, or (ii) after the withdrawable units have been installed into their corresponding insert compartment.

Accordingly, claim 33 positively recites the subject matter which Applicants regard as the invention of claim 33. Therefore, Applicants respectfully request that the indefiniteness rejections of claims 33-41 be withdrawn.

II. Rejections Under 35 U.S.C. § 103(a)

A. Claims 22, 23 and 26-40 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chen (U.S. Patent No. 7, 002,807) in view of Swales (WO 02/05107). This rejection is respectfully traversed.

The Office alleges that the "combined system" of Chen and Swales suggests the features of the claimed invention. The Office also alleged that Applicants have addressed the references individually. The Office is respectfully reminded that if the applied references, either individually or in combination, do not disclose all the recited features of the claimed invention, then a *prima facie* case of obviousness has not been made. Consequently, if Chen or Swales do not disclose all the recited features of the claimed invention, then the Office's hypothetical "combined system" of Chen and Swales cannot arrive at or render obvious the claimed invention. As set forth below, the Office has misinterpreted the "combined system" of Chen and Swales as suggesting features of the claimed invention which are not disclosed by Chen or Swales in an attempt to arrive at the features of the claimed invention.

With reference to Figure 1, an exemplary embodiment of the present disclosure provides a switchgear assembly system. The exemplary system includes withdrawable units 11 which each include a respective memory 50 configured to store therein appliance operation information that is required for operation of the corresponding withdrawable unit 11. The exemplary system also includes a switchgear cabinet 10 having a plurality of insert compartments 12, 14, 16, 18 which are each configured to have installed therein a respective one of the withdrawable units 11. The exemplary system also includes a field bus connected to each insert compartment 12, 14, 16, 18 to provide communication to each withdrawable unit 11 respectively installed into a corresponding one of the insert compartments 12, 14, 16, 18.

The exemplary system also comprises an Ethernet switch 20 having a plurality of ports 13, 15, 17 and 19. Each insert compartment 12, 14, 16, 18 is allocated to a unique one of the ports 13, 15, 17 and 19. For instance, as shown in Figure 1, insert compartment 12 is uniquely connected to port 13 of the Ethernet switch 20. Insert compartment 14 is uniquely connected to port 15, insert

compartment 16 is uniquely connected to port 17, and insert compartment 18 is uniquely connected to port 19. Accordingly, the insert compartments can be uniquely identified by an address so that the compartment and a withdrawable unit can be uniquely addressed and identified.

Therefore, according to the exemplary embodiment, the Ethernet switch 20 can communicate independently with each one of the withdrawable units 11 via the field bus according to an Ethernet TCP/IP protocol, such that each one of the withdrawable units 11 installed into a corresponding one of the insert compartments 12, 14, 16, 18 is respectively allocated a unique TCP/IP address to enable each one of the withdrawable units 11 to constitute a TCP/IP interface.

Accordingly, if a withdrawable unit 11 fails, for example, it becomes possible to replace the failed unit with a working unit and assign a unique address to that new working unit. Similarly, if a working unit is disconnected from one of the insert compartments, the working unit can be recognized when it is connected back to the insert compartment, so that configuration and addressing operations are obviated.

The exemplary system also includes an application server 30 configured to assign the respectively unique TCP/IP address to each one of the withdrawable units 11 installed into a corresponding one of the insert compartments 12, 14, 16, 18. In addition, the exemplary system includes a database 40 configured to at least one of store and manage respective appliance data for each one of the withdrawable units 11.

Claims 22 and 33 recite various features of the above-described exemplary embodiment. The inventions of claims 22 and 33 are patentable over the applied references for at least the following reasons.

Chen discloses a telecommunication system and method for automatic provisioning of equipment, topology and end-to-end paths for SONET networks (see Column 1, lines 20-23). Chen defines SONET as "synchronous optical network" using optical fibers (see Column 1, lines 26-30).

The Office alleged that Chen discloses the feature of an insert compartment being allocated a unique port. With reference to Column 5, lines 6-15 and Fig. 2, Chen discloses a cross-connect card (CC) 210 and a TMO switch having trunk cards T_0 - T_n 214 inserted into one of a plurality of trunk slots 206. Based on this disclosure,

the Office alleged that Chen discloses the feature of each insert compartment being allocated to one of the ports so that each trunk card is allocated a unique address. This allegation is not supportable.

Despite the Office's attempt to arrive at the claimed invention, Applicants respectfully submit that Chen's disclosure does not support the Office's assertion that the trunk cards are allocated a unique address. On the contrary, the portions of Chen cited by the Office, as well as the remaining disclosure of Chen, merely discloses that the trunk cards 214 are specifically allocated to service a specific type of device. There is no mention of the trunk cards being allocated a unique address.

Claim 22 recites that the Ethernet switch has a plurality of ports respectively allocated to a corresponding one of the insert compartments such that each insert compartment is allocated to a unique one of the ports, and that the Ethernet switch is configured to communicate with each one of the withdrawable units via the field bus according to an Ethernet TCP/IP protocol, such that each one of the withdrawable units installed into a corresponding one of the insert compartments is respectively allocated a unique TCP/IP address to enable the each one of the withdrawable units to constitute a TCP/IP interface.

Chen does not disclose or suggest this feature of allocating a unique address to a withdrawable unit in accordance with allocating a unique port of an Ethernet switch to the insert compartment into which the withdrawable unit is installed so that the withdrawable unit can be uniquely identified and allocated a unique TCP/IP address. As acknowledged by the Office, Chen does not disclose, suggest or contemplate the feature of an Ethernet TCP/IP connection and address allocation, as well as a withdrawable unit constituting a TCP/IP interface.

Swales also does not disclose or suggest the above-described features of claim 22. Swales discloses a system for automatically reconfiguring industrial networks with the use of TCP/IP networks such as Ethernet. The Ethernet network comprises Ethernet managed switches 20 to which a number of hubs 40 having a number of hub ports 45 are connected (see Figure 1). A plurality of devices such as I/O devices 50 and a PC 60 are connected to these hub ports 45 (see page 24). The monitor agent 10 knows the approximate location of the individual devices by knowing to which port the individual device is connected (see page 24, lines 23-35).

However, in contrast to the claimed invention, the monitor agent 10 does not know of the individual devices based on a unique TCP/IP address that are allocated to the individual devices based on the connection of the individual devices to a unique port of the hub 40. On the contrary, Swales discloses that the monitor agent 10 knows individual devices based on the MAC address of the device, not a TCP/IP address uniquely assigned to the device. Instead, Swales discloses that different devices connected to the same port at different times will be assigned the same IP address (see page 25, lines 8-13).

Furthermore, on page 10 of the Office Action, the Office has improperly interpreted a MAC address as corresponding to a TCP/IP address. A MAC address is unique to a device. It is not allocated to the device by an Ethernet switch when the device is inserted into a corresponding one of a plurality of insert compartments. It is instructive to note the elaborate efforts undertaken by the Office to fit the disclosure of Chen and Swales into the Office's unduly broad interpretation of the claimed invention. For instance, if Swales disclosed the feature of allocating a respectively unique TCP/IP address to each withdrawable unit that is installed into a corresponding one of the insert compartments, as recited in claim 22, the Office would have presumably been able to point to a specific area of disclosure of Chen or Swales. On the contrary, in an attempt to arrive at this feature of the claimed invention, the Office referred to pages 20-27 of Swales. However, at no point does Swales disclose or suggest the feature that each one of the withdrawable units installed into a corresponding one of the insert compartments is respectively allocated a unique TCP/IP address. Despite the Office's attempt to arrive at this feature, Swales does not disclose or suggest any feature remotely resembling the concept of allocating a unique TCP/IP address to any withdrawable unit. On the contrary, Swales merely discloses that devices have a unique MAC address. However, as known in the art, a MAC address is different in both purpose and effect from the allocation of a unique TCP/IP address.

Accordingly, similar to Chen, Swales does not disclose or suggest an Ethernet switch having a plurality of ports respectively allocated to a corresponding one of the insert compartments such that each insert compartment is allocated to a unique one of the ports, and the Ethernet switch being configured to communicate with each one

of the withdrawable units via the field bus according to an Ethernet TCP/IP protocol, such that each one of the withdrawable units installed into a corresponding one of the insert compartments is respectively allocated a unique TCP/IP address to enable the each one of the withdrawable units to constitute a TCP/IP interface, as recited in claim 22.

Furthermore, by failing to disclose or suggest the arrangement of the Ethernet switch and insert compartments, Chen and Swales also cannot disclose or suggest the recited arrangement of the application server and database, as recited in claim 22.

Accordingly, for at least the foregoing reasons, Applicants respectfully submit that claim 22 is patentable over Chen and Swales, since Chen and Swales do not disclose or suggest all the recited features of claim 22.

The method of new claim 33 is patentable for similar reasons. For instance, Chen and Swales do not disclose or suggest the second connecting feature as well as the allocating and downloading features as recited in claim 33.

Therefore, Applicants respectfully submit that claims 22 and 33 are patentable over Chen and Swales, since Chen and Swales, either individually or in combination, fail to disclose or suggest all the recited features of claims 22 and 33.

Dependent claims 24, 25 and 41 were additionally rejected on the basis of Maloy (U.S. 6,557,049) and Daude (U.S. 7,254,630).

Maloy and Daude, either individually or in combination, do not cure the deficiencies of Chen and Swales for failing to disclose or suggest all the recited features of claims 22 and 33.

Accordingly, for at least the foregoing reasons, Applicants respectfully submit that claims 22 and 33, as well as claims 23-32 and 34-41 which depend therefrom, are patentable over the applied references.

Dependent claims 23-32 and 34-41 recite further distinguishing features over the applied references. The foregoing explanation of the patentability of independent claims 22 and 33 is sufficiently clear such that it is believed to be unnecessary to separately demonstrate the additional patentable features of the dependent claims at this time. However, Applicants reserve the right to do should it become appropriate.

III. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. Accordingly, a favorable examination and consideration of the instant application are respectfully requested.

If, after reviewing this Response, the Examiner believes there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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